MYXOMYCETES NEW TO CRATER LAKE NATIONAL PARK, OREGON. I.

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During the winter months an over-abundance of precipitation generally in the form of snow is deposited in the High Cascades of Crater Lake National Park. Each year, the accumulated annual snow depth often exceeds 50 feet from November to May. Early in the spring slimemolds or Myxomycetes are frequently exposed as the snow melts away from forest litter and fallen logs. Decaying, moist organic matter such as bark, wood, and fallen twigs is characteristically noted as the habitat for Myxomycetes. In contrast, the summer is normally quite dry since very little rain falls during the months of July and August. However, during mid-August, 1968, succeeding storms (snow followed by several days of rain) brought 5.34 inches of precipitation which almost doubled any previous weather record set in the park for that month. Following the storms in late August and early September many specimens of slimemolds were collected. Interestingly, some of these are not commonly found in montane areas.

Most of the Myxomycetes reported thus far for Crater Lake National Park were recorded by Peck and Gilbert (1931) as occurring from the High Cascades to the Coast Range in northwestern Oregon. Exceptions include one species reported by Martin (1932), three new species described by Kowalski (1966, 1968), and I (Curtis, 1968) mentioned *Barbeyella minutissima* Meylan as well as eight additional species (Curtis, 1969) as being new to the State of Oregon.

All the specimens for this paper were collected on some form of decaying wood at elevations from 6,000 to 7,000 feet during the summer of 1968. Previously, this author (Curtis, 1969) indicated the presence of 43 different species in a preliminary report of the slimemolds from the park. The 11 species, included here, bring the total number of Myxomycetes found in Crater Lake National Park to 54. At least one collection of each species has been deposted in the University of Iowa Herbarium, Iowa City, Iowa and where possible, duplicate specimens have been given to the Crater Lake National Park Herbarium, Crater Lake, Oregon. The numbers for the collections are my own and they indicate only those specimens given to the University of Iowa Herbarium. The names of the organisms are those accepted by Martin (1949).

Reticulariaceae

Reticularia splendens Morgan. On a decorticated fallen log, Kerr Valley, 6,800 feet, *1522*, Sept. 4, 1968. Only two aethalia were found, one 5 mm and the other 13 mm in diameter. Both were brownish-copper colored with a white conspicuous margin about the base of the hypothallus. Spores were generally reticulate over two-thirds of their surfaces.

Trichiaceae

Arcyria globosa Schw. On a decorticated fallen coniferous log, west Goodbye Bridge area, 6,100 feet, *1479,* Aug. 30, 1968. Several small, short-stalked sporangia about 0.4 to 0.8 mm in diameter were scattered throughout the grooves of a decaying log. The peridium, in most cases, was fugacious while the capillitium and spores were the typical drab, ashen-grey color. Several specimens were collected at elevations from 6,000 to 7,000 feet.

A. incarnata (Pers.) Pers. On decayed wood, Kerr Valley, 6,800 feet, *1520,* Sept. 4, 1968. The sporangia were generally short stalked with a saucer-like base from which there was a greatly expanded, loose capillitum. Most were rosaceous to brown in color. This slimemold was found in many areas of the park.

Stemonitaceae

Enerthenema papillatum (Pers.) Rost. On decayed wood, 2 miles west of Annie Springs, 6,000 feet, *1442,* Aug. 27, 1968. The sporangia, for the most part, had a total height ranging from 0.8 to 1.5 mm. The stipe expanded at the tip of the columella to form a disk from 0.05 to 1.5 mm in diameter. The peridium was fugacious and the spores appeared to be black in mass.

Stemonitis axifera (Bull.) Macbr. On decayed wood, west Goodbye Bridge area, 6,100 feet, *1476,* Aug. 30, 1968. This collection was obtained on the underside of a decayed stump. The sporangia were densely clustered, a bright rusty-brown, and 7–8 mm in height. The spores (about 5μ in diameter) were minutely warted.

S. palliada Wing. On decayed wood, northeast of Goodbye Bridge area, 6,100 feet, *1461,* Aug. 29, 1968. Small clusters of 5 to 10 sporangia (3–4 mm high) were found scattered over an area of approximately 4 square millimeters. The sporangia were slightly elongate-ovate in shape and lilaceous-brown in color.

S. hyperopta Meylan. On decayed wood, 2.4 miles southeast of Park Headquarters, 6,700 feet, *1423,* June 23, 1968. The sporangia were sometimes scattered but generally gregarious in small clusters, lilac-brown in color and 1–2 mm tall.

Physaraceae

Leocarpus fragilis (Dicks.) Rost. On decayed wood, Kerr Valley, 6,800 feet, *1518,* Sept. 4, 1968. Sporangia were gregarious with a shiny, smooth, reddish-brown and very brittle peridium. The spores appeared black in mass.

Physarum leucopus Link. On needles and fallen twigs, west side of Munson Ridge, 6,900 feet, *1500,* Sept. 1, 1968. Sporangia were somewhat scattered. The peridium and stalk were frosty-white with lime deposits.

P. newtoni Macbr. On a decayed broken limb, northwest of Goodbye Bridge area, 6,200 feet, *1443,* Aug. 27, 1968. The two collections con-

tained hundreds of gregarious sporangia, stalked, bright rose-purple with red lime nodes. Most stalks were as long or longer than the diameter of the sporangium, thereby, differing from the descriptions of Lister (1925) and Martin (1949) who both indicated that the sporangia were short-stalked or sessile. The stalk was not translucent and therefore this Myxomycete could not be *Physarum roseum* Berk. & Br. Although this Myxomycete has been reported previously from Oregon (Peck and Gilbert, 1931), it is considered rare.

P. notabile Macbr. On bark and wood of a fallen coniferous tree, west side of Munson Ridge, 6,900 feet, *1498,* Sept. 1, 1968. This slime-mold was primarily sessile with a few sporangia merging into short plasmodiocarps while others had short, furrowed stalks. The peridium appeared to be uncrusted with an ashy, bluish-white lime deposit.

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Literature Cited

Curtis, D. H. 1968. Barbeyella minutissima, a new record for the Western Hemisphere. Mycologia 60: 708–710.

————. 1969. New records of Myxomycetes from Oregon. I. Madroño: 20:75–77.

————. 1969. A preliminary report of the Myxomycetes of Crater Lake National Park, Oregon. Madroño: 20: 278–282.

Kowalski, D. T. 1966. A new species of Lamproderma from California. Mycologia 58: 808–810.

————. 1968. Three new species of Diderma. Mycologia 60: 595–603.

————. 1968. Observations on the genus Lamproderma. Mycologia 60: 756–768.

Lister, A. 1925. A monograph of the Mycetozoa. 3rd ed. by G. Lister, Brit. Mus. Nat. Hist. London.

Martin, G. W. 1932. New species of slime molds. J. Wash. Acad. Sci. 22: 88–92.

————. 1949. North American Flora 1:1–190.

Peck, M., and H. Gilbert. 1931. Myxomycetes of northwestern Oregon. Amer. J. Bot. 19: 141–147.

NOTES AND NEWS

Ratibida columnifera (Compositae) in California.—*Ratibida columnifera* has previously not been known from California, although it is widespread from British Columbia to Minnesota and south to Arizona, Mexico, and Tennessee. Recently we collected specimens of this species on dry rocky soil on the west side of Eagle Lake in Lassen Co. at the Eagle Lake Field Station (*Santamaria & Ediger 721,* CAS, UC). The local population consists of about 100 plants.—Robert Ediger, Chico State College, Chico 95926, and Nick Santamaria, Tahoe-Truckee High School, Truckee, California 95734.